

**REMARKS**

This amendment submitted in response to the non-final Office Action dated January 8, 2007, is believed to be fully responsive to the points of rejection raised therein.

Claims 1, 9, 15, 18, 19, 22, 30, 36, 39, 40, 46, 54, 60, 63, 64, 70, 78 and 86 have been amended. Claims 8, 29, 44, 53, 68, 77, 85 and 93 have been cancelled. Upon entry of the amendments, claims 1-7, 9-28, 30-43, 45-52, 54-67, 69-76, 78-84, and 86-92 will be pending in the present patent application. Applicants respectfully request reconsideration and allowance of all pending claims in view of the above amendments and following remarks offered in response to the Office Action.

**Objections**

The Examiner objected to the appeal brief submitted on October 27, 2006 for a typographical error in the case number printed on each page of the Appeal Brief. Applicants thank the Examiner for pointing out this error. However, insomuch as the present response is made to the new grounds for rejection, Applicants request holding the objection in abeyance, and the correction will be made in an eventual revised Brief in the event the Appeal is renewed.

**Claim Interpretation**

The Examiner provided an interpretation of the use of the term “ideal” on page 3 of the office action. Applicants have amended claims 1, 9, 15, 18, 19, 22, 30, 36, 39, 40, 46, 54, 60, 63, 64, 70, 78 and 86 to remove the recitation of the term “ideal” in the claims.

**Rejections Under 35 U.S.C. 103**

Claims 1-93 were rejected under 35 U.S.C 103(a) as being unpatentable over U.S Patent No. 5,018,069 (hereinafter “Pettigrew” in view of U.S Patent No. 5,727,128 (hereinafter “Morrison”). For a *prima facie* case of obviousness, the Examiner must set forth the differences in the claim over the applied reference, set forth the proposed

modifications of the reference, which would be necessary to arrive at the claimed subject matter, and explain why the proposed modification would be obvious.

Applicants respectfully submit that the applied references, either alone or in combination, do not teach, disclose or suggest all the features recited in the independent claims 1, 9, 15, 18, 19, 22, 30, 36, 39, 40, 46, 54, 60, 63, 64, 70, 78 and 86. Specifically, none of the references teach, disclose or suggest a system and method for performing engine baseline modeling, comprising a model diagnostics component that evaluates the performance of the engine baseline model.

Accordingly, the combination of references cannot possibly include these features of the claims, and thus cannot render the claims obvious.

**Claims 1, 9, 15, 18, 19, 22, 30, 36, 39, 40, 46, 54, 60, 63, 64, 70, 78 and 86 and claims depending therefrom**

Pettigrew discloses a diagnostic system for continually monitoring and reporting data reflecting the performance condition of a monitored turbine engine. The diagnostic apparatus senses engine performance related parameters, refers the data to a standard atmosphere condition, and plots values relating to the functions of each engine performance related parameter with respect to other engine performance related parameters. (Abstract).

However, the diagnostic system disclosed in Pettigrew is not equivalent or even similar to a system and method for performing engine baseline modeling as disclosed in the present patent application. Furthermore, there is no disclosure, teaching or even a suggestion in Pettigrew to a system and method for performing engine baseline modeling, comprising a model diagnostics component that evaluates the performance of an engine baseline model.

Applicants have carefully reviewed the material cited by the Examiner in Figure 5 #251 and Col. 2 lines 19-46 in Pettigrew and submit that this section fails to disclose a model diagnostics component that evaluates the performance of an engine baseline model. Instead, this section discloses that engine behavior can be recorded in a referred engine diagnostic data (REDD) format and that a turbine engine may be diagnosed based on a logical analysis of the functional dependency between normal system operation and actual sensed engine performance parameters. In addition, Applicants have reviewed the material cited by the Examiner in Col. 11, lines 8-23 in Pettigrew and submit that this section fails to disclose the step of evaluating the performance of the engine baseline model. Rather, this section discloses that the engine performance parameters may be plotted as points on the baseline, and that the location of the current operating point as plotted is compared with the location of the baseline to determine whether the engine is currently running within the normal operating band values.

Clearly, there is no disclosure, teaching or even a suggestion in Pettigrew to a model diagnostics component that evaluates the performance of an engine baseline model. One skilled in the art would therefore conclude that Pettigrew appears only to disclose a technique for determining the *extent of engine deterioration* by measuring the degree of deviation between various turbine engine performance parameters and actual engine parameter curves. In contrast, the present patent application discloses a system and method for *evaluating the performance of an engine baseline model*.

Morrison similarly fails to teach this recited feature, and indeed, the Examiner did not rely upon Morrison for teaching a system and method for performing engine baseline modeling, comprising a model diagnostics component that evaluates the performance of an engine baseline model.

Consequently, no combination of the references could render such inventive features obvious. In view of the above-noted distinctions, Applicants submit that claims 1, 9, 15, 18, 19, 22, 30, 36, 39, 40, 46, 54, 60, 63, 64, 70, 78 and 86 are neither the same as, nor in any way taught or suggested by Pettigrew or Morrison taken either singly or in

combination. In view of the foregoing deficiencies in the teachings of the prior art, the references cannot establish a *prima facie* case of obviousness of claims 1, 9, 15, 18, 19, 22, 30, 36, 39, 40, 46, 54, 60, 63, 64, 70, 78 and 86. Accordingly, these claims are believed to be clearly patentable over the cited combination. Their reconsideration and allowance is respectfully requested. Dependent claims 2-7, 10-14, 16-17, 20-21, 23-28, 31-35, 37-38, 41-43, 45, 47-52, 55-59, 61-62, 65-67, 69, 71-76, 79-84 and 87-92 depend from presumably allowable independent claims 1, 9, 15, 18, 19, 22, 30, 36, 39, 40, 46, 54, 60, 63, 64, 70, 78 and 86. Accordingly, these claims are believed to be clearly patentable over the cited combination. Their reconsideration and allowance is requested.

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims.

**Please charge all applicable fees associated with the submittal of this Amendment and any other fees applicable to this application to the Assignee's Deposit Account No. 07-0868.**

Should the Examiner believe that anything further is needed to place the application in even better condition for allowance, the Examiner is requested to contact Applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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